

CLAIMS

WHAT IS CLAIMED IS:

1. A Li-ion secondary battery with double standard cells, including:
 - 5 a casing, having the same size as the size of the casing for double standard cells;
 - two standard Li-ion cells, connected in parallel and installed inside the casing; and
 - a printed circuit board, which is located inside the casing; also, a
 - 10 step-down circuit for stepping down the discharge voltage of the Li-ion cells, a charging circuit for charging the Li-ion cells, a protecting circuit for protecting the Li-ion cells, and a low-battery detecting circuit for detecting the power of the Li-ion cells are provided on the printed circuit board.
- 15 2. The Li-ion secondary battery with double standard cells as claimed in claim 1, wherein a charging slot is provided on the casing and connected to the charging circuit so that an adaptor inserted inside the charging slot can charge the Li-ion cells.
3. The Li-ion secondary battery with double standard cells as claimed in
- 20 claim 1, wherein the standard cells are selected from either an AA standard cell or an AAA standard cell.
4. The Li-ion secondary battery with double standard cells as claimed in claim 1, wherein the discharge voltage of the Li-ion cells is between 3.6 and 4.2 volts, and the step-down circuit will step down the

discharge voltage of the Li-ion cells to at about 3 volts.

5. The Li-ion secondary battery with double standard cells as claimed in claim 1, wherein when the low-battery detecting circuit detects that the power of the Li-ion cells is running out, the step-down circuit will switch the voltage to a low voltage in order that the electronic product can sense the low voltage.
6. The Li-ion secondary battery with double standard cells as claimed in claim 5, wherein the step-down circuit will lower the voltage to a 2-volt low voltage.

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